



MEMORANDUM

DATE: December 6, 1995 5400.1

TO: T. J. Humiston, Waste Management, Bldg. T130F, X2700

FROM: *M. B. Murdock*
M. B. Murdock, Ecology, Bldg. T130B, X3560

SUBJECT: WETLAND PRESENCE DETERMINATION AND REVEGETATION
RECOMMENDATION FOR COMPLETION OF TANK REMOVAL AND BERM
RECONTOURING PROJECT - MBM -113 - 95

At your request Ecology personnel evaluated the Central Avenue tank removal site for wetland concerns, and revegetation conditions. As my phone message to you on December 4, 1995 indicated, the EPA and U. S. Army Corps of Engineers must determine if the wetlands areas within the two spill containment structures must be mitigated. On December 5, 1995, Mike Nelson requested that Ecology pursue closure on this determination. Ecology is proceeding to fulfill that request.

Inspection of the berm material confirmed that the material appears to be a roadbase aggregate that is unsuitable for establishment of a vigorous cover of vegetation. The project must include importation of topsoil to ensure revegetation success. Topsoil reserved during construction of the New Landfill may be available, however, it is more likely that the project will have to purchase soil from off-site. Based on recent revegetation efforts at Rocky Flats, we recommend placement of a minimum of 6 inches of topsoil over the final contoured berm material. The recommended method of revegetation is discussed in more detail below.

After completion of final contouring of the berm material, the surface of the berm material should be scarified to a depth of 8 to 12 inches to relieve soil compaction caused by heavy equipment. Placement of the topsoil may then proceed. Due to the difficulty of applying a uniform 6 inch layer of soil, an application depth of from 4 to 8 inches will be acceptable. Seed shall be applied directly into the topsoil at a rate of 12 pounds per acre if a no-till seed drill is used, or twice that if the seed is broadcast. See the attached Table 1 for the recommended seed mixture. If broadcast seeding is used, a light dragging of the soil surface is recommended after application so the seed is covered. Fertilizer should be applied at a rate of 60 pounds of nitrogen per acre, and 60 pounds of phosphorus per acre.

Application of mulch is the final step in the revegetation process. Due to the protected location of the work site, a tackified mulch may not be necessary. Tacifiers are generally used when slopes are extreme, or strong winds are anticipated. Because the project is scheduled to be completed in the early spring when the strong winter winds at the Site have normally abated, placement of straw or hay mulch should be sufficient. Any mulch used must be of certified weed-free materials. Hydromulches of wood fiber or excelsior are acceptable. If hay or straw is used, such material should be anchored into the soil by crimping. The use of plastic netting material is not acceptable due to the tendency of such material to trap and kill small birds. Ecology can provide

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names and addresses of vendors who provide seed, weed-free materials, and hydromulches.

Ecology must still complete threatened and endangered species, and migratory bird surveys in the work area to comply with wildlife protection procedures for the Site. Mr. Harvey will be contacted to arrange the necessary site access to complete this process. Once these surveys are complete, you will receive a report of the results for your project records.

Should you have comments or require further information, please call me at extension 3560.

MBM:mbm

Attachment:
As Stated

cc:
C. S. Evans
J. D. Krause
M. J. Nelson
T. R. Ryon
ERPD Records File (2)

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Attachment 1

SEED MIXTURE FOR TANKS REMOVAL PROJECT

<u>SPECIES COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>APPLICATION RATE (PLS lbs/ac)⁽¹⁾</u>
Western Wheatgrass (Arriba)	<i>Agropyron smithii</i>	3.0
Blue Grama (Lovington)	<i>Bouteloua gracillis</i>	2.0
Buffalo Grass (Native)	<i>Buchloe dactyloides</i>	2.0
Big Bluestem (Native)	<i>Andropogon gerardii</i>	2.0
Little Bluestem (Native)	<i>Schyzachyrium scoparium⁽²⁾</i>	2.0
Blue Flax	<i>Linum perenne</i>	1.0
Total Pure Live Seed per Acre Application ⁽³⁾		12.0

(1) Pure Live Seed Pounds per Acre

(2) *Andropogon scoparius* (synonym)

(3) Recommended application rate for no-till drill. For broadcast seeding, the application rate should be doubled. Seed should be applied directly to the soil. Application within hydromulch material is not acceptable due to poor previous success at the Site.